REMARKS/ARGUMENTS

The Examiner is thanked for the performance of a thorough search. By this amendment, Claims 1-7 were cancelled. Claims 8-20 were added. Hence, Claims 8-20 are pending in the application.

SUMMARY OF THE REJECTIONS/OBJECTIONS

Claims 1-6 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards the invention.

Claims 1-6 were rejected under 35 U.S.C 101 because the claims were directed to a non-statutory subject matter, specifically, the claims were not directed towards the final result that is "useful, tangible and concrete".

Claim 1 was rejected under 35 U. S. C. 102(a) as being anticipated by Page et al. ("The PageRank Citation Ranking: Bringing Order to the Web", internet citation, 29 January 1998, XP 00221358).

Claim 1-2 and 5-6 were rejected under 35 U. S. C. 102(b) as being anticipated by Page (U.S. patent No. 6,285,999)

Claims 3-4, were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No.6,285,999 to Page in view of Haveliwala et al. ("Topic Sensitive PageRank", internet citation, 7 may 2002, pages 1-17.)

REJECTIONS NOT BASED ON THE PRIOR ART

Claim Rejections Based on 35 U.S.C. 112

Claim 1-6 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically the rejection requires clarification of language "initial authority weight" and "input authority weight" and also for claims to delimit how the invention is practiced by active, positive steps.

Claim 1 was cancelled, replaced by a new Claim 7. The terms "input authority weight" and "initial authority weight" that were used as a basis of rejection were replaced with "authority weight." Consistent use of terminology clarifies the meaning of the claim.

The new Claim 7 also recites active steps needed to practice the invention. Namely, the step of recursively distributing the page's authority weight. The step presents a new efficient way of calculating authority weights of pages by following an outgoing link from the current page.

Claims 2-6 were rejected because they depend on the Claim 1. Claim 1 has been cancelled. Since claim 7 uses consistent terminology and recites active, positive steps delimiting the practice of the invention, it is respectfully submitted the 35 U.S.C. 112 second paragraph rejections have been overcome.

Claim Rejections Based on 35 U.S.C. 101

Claims 1-6 were rejected under 35 U.S.C. 101. The examiner requested to include in the claimed limitations the following: practical application, result, and final result that is concrete, useful, and tangible. The new claims meet the requests. A practical application is recited in Claim 7 as **presenting the search results that list the pages that match the said search**

query based, at least in part, on the authority weights associated with the pages that match the search query. The above feature also serves as the result as well as a final result that is tangible, concrete and useful. Anyone using the invention recited in Claim 7 will be able to see ordered results of a search query making the final result concrete and tangible. The examiner is earnestly requested to withdraw the rejection.

REJECTIONS BASED ON THE PRIOR ART

Claims 1 was rejected under 35 U.S.C. § 102(a) as being anticipated by Page et al. ("The PageRank Citation Ranking: Bringing Order to the Web" hereinafter "Page et al."). Claims 1 was also rejected under 35 U.S.C. § 102(b) as being anticipated by Page ("U.S. Patent No. 6,285,999" hereinafter "Page"). While Page and Page et al. describe the computation of a PageRank vector, they both fail to teach every feature of new Claim 7.

Claim 7 recites:

A computer-implemented method for presenting a set of search results, the method comprising:
assigning, to each page of a set of one or more pages, an authority weight;
wherein the authority weight assigned to each page represents a relative importance of the page relative to other pages;
for each page in the plurality of pages, recursively distributing the page's authority weight over pages that belong to a collection of pages, thereby establishing authority weights for at least some pages, within the collection, that do no belong to the set of one or more pages;
wherein the step of recursively distributing the page's authority weight includes establishing the page as a current page and repeatedly performing the following steps until an end condition is satisfied:
a) following an outgoing link from the current page to a next page that belongs to the collection;
b) distributing a portion of the authority weight to the next page; and
c) establishing the next page as the current page;
receiving a search query that is to be executed against the collection;
identifying a set of pages from the collection that match the search query;

determining how to present search results that list the pages that match the said search query based, at least in part, on the authority weights associated with the pages that match the search query; and

presenting the search results that list the pages that match the said search query based, at least in part, on the authority weights associated with the pages that match the search query.

Page et al. and Page describe the computation of a PageRank vector and a personalized PageRank vector using power iteration techniques while Claim 7 of a computation using a novel recursive method which follows all outgoing links. Admittedly, Page et al. and Page mention a recursive **definition of the term rank**. "This implies a recursive definition of rank: the rank of a document is a function of the ranks of the documents that cite it." Page Col 2, Line 67 However, the fact that they use a recursive definition for a term has nothing to do with how they distribute authority weights. In order compute the PageRank vector i.e. distribute the authority weights, Page et al. and Page teach the use of iterative techniques. "The ranks of documents may be calculated by an iterative procedure on a linked database." Page Col 2 Line 67 Col 3 Lines 2-3 The actual computation is detailed in Page et al. Section 2.6 "Computing PageRank" p.6 Lines 8-15. The algorithm works by taking any initial set of ranks and successively multiplying the set with a square matrix A (A's rows and columns correspond to all the crawled web pages and the probabilities of transition from one to another), renormalizing the ranks, and finally computing the error which is used as the loop termination condition. On the other hand Claim 7 teaches **of recursively distributing the page's authority weight. Which includes establishing the page as a current page and repeatedly performing the following steps until an end condition is satisfied**, following an outgoing link from the current page to a next page that belongs to the collection; distributing a portion of the authority weight to the next page; and **establishing the next page as the current page**. Page et al. and Page in fact teach away from using a recursive technique. Iterations globally

treat all the nodes equally and spend most of the time on irrelevant nodes. In comparison, recursive method utilizes local propagation – it never touches certain distant nodes. This results in a computation of authority weights that is significantly faster than computing of a page-specific PageRank vector. Because claim 7 contains features not taught or suggested by Page et al. and Page it is therefore not anticipated by Page et al. and Page. It is respectfully submitted that the rejections are withdrawn.

Based on the foregoing, Page et al. and Page fail to teach at least several features of Claim 7 and thus fails to teach all the features of Claim 7. By their nature dependent Claims 8-13 limit the scope of independent Claim 7. Because it was shown that independent Claim 7 contains features not taught by the cited prior art reference, reconsideration and removal of these rejections is respectfully requested.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,
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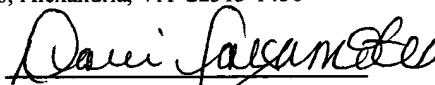2055 Gateway Place, Suite 550
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